Amendments to the Specification:

Please amend the specification as follows:

In the Description

1. Please replace the second full paragraph on page 16 with the following paragraph:

In the next step, the principal axes of the original part and the centroid of the part are computed (step 808). This step 808 is performed to properly position the part on the opposite side of the plane of symmetry. The centroid may be the center of mass if data to compute the mass is available; alternately, the centroid may be the geometric center of the part assuming that the part has a uniform density. In one embodiment, functionality provided by the Parasolid® **geometric modeler** ~~geometry kernel~~ (available from UGS of Cypress, California) computes the principal axes and the centroid of the part.

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2. Please replace the third full paragraph on page 16 with the following paragraph:

Four transformations are then created that when applied to the original part would place that part in one of the orientations (704–716) illustrated in FIG. 7 and previously discussed with reference to FIG. 7 (step 810). In one embodiment, the four transformations are 4 by 4 matrices. Each transformation contains data that translates the original part's centroid twice the distance along the normal to the plane of symmetry, thereby positioning the centroid at a symmetric location with respect to the original location. One transformation also contains data that does not rotate the part (i.e., a 0° rotation). The second, third, and fourth transformations contain data that produce a 180° rotation about the part's principal x-axis, a 180° rotation about the part's principal y-axis, and 180° about the part's principal z-axis~~, respectively~~.

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3. Please replace the paragraph beginning on page 24, line 25 and continuing on page 24, with the following paragraph:

Referring now to FIG. 12, a procedure 1200 determines which geometric entity in a new replicated component to mate with a geometric entity in a new truly mirrored component. A replicated component is likely to have symmetrical qualities, which may be the reason that the design engineer or automated process (discussed with reference to FIG. 8) decided to replicate rather than truly mirror the component. Therefore, **a reflection of** the mated geometric entity in the original ~~**replicated**~~ component **that was replicated** ~~**when reflected**~~ should share similarities with a geometric entity that is a mating candidate in the new replicated component.

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4. Please replace the paragraph beginning on page 26, line 21 with the following paragraph:

For the geometric entity to be a mating candidate, the geometric entity must be the same type of geometric entity (e.g., edge or face) as that of the geometric entity mated in the original ~~**replicated**~~ component **that was replicated**. Thus, procedure 1200 may determine whether a mating candidate is found (step 1206) by finding a particular type of geometric entity in an appropriate position.

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5. Please replace the paragraph beginning on page 27, line 20 with the following paragraph:

When a component has no mating relationship or when only one component in a mated pair is mirrored, the present invention may create a symmetric mating relationship between the original component and the mirrored component created from the original component. **(Hereinafter the original component and the mirrored component created from the original component may be referred to as the mirrored component pair, or simply the**

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mirrored pair.) This symmetric mating feature enables one component in the mirrored component pair to be repositioned with respect to the plane of symmetry when the other component in the mirrored pair is repositioned. The symmetric mating relationship may be implemented as a data structure that contains references (e.g., ~~a~~-pointers) to a geometric entity belonging to the original component, a corresponding geometric entity belonging to the other component in the mirrored pair, and a plane of symmetry.